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10/520,202	01/04/2005	Josephus Arnoldus Henricus Maria Kahlman	NL 020629	2688
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PHILIPS INTELLECTUAL PROPERTY & STANDARDS			EXAMINER	
P.O. BOX 3001			ARMOUNCHE, HADI S	
BRIARCLIFF MANOR, NY 10510				
		ART UNIT	PAPER NUMBER	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/520,202

**Applicant(s)**

KAHLMAN ET AL.

**Examiner**

HADI ARMOUCHE

**Art Unit**

2132

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 8/24/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant is reminded with 37 CFR 1.121(c) when amending the claims. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

#### ***Information Disclosure Statement***

2. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

3. The listing of references in the specification (page 1 line 28, page 6 line 16, page 8 line 25, page 9 line 3 and page 11 line 27) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.
4. The information disclosure statement filed on 8/24/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. To expedite the examining prosecution, the examiner considered the references listed and attached a copy of each reference to be placed in the application file.

#### ***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a) because the proper labels or legend corresponding to all blocks must be provided as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Moreover, figure 2 element 6 has the number "6" flipped. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being

amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. The use of the trademark "*Hitachi*" has been noted in this application (page 11 line 32). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Objections***

7. Claims 1 and 16 are objected to because of the following informalities: claim 1 line 3 refers to  $A_k$  without defining it. For the purpose of examination, examiner

assumed to be an encryption key. Similarly for claim 16. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The specification page 12 line 5 states that the invention can be implemented in software per se which is non-statutory subject matter.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 5 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 which depends on claim 3 recites the limitation "...the expiration date.." in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination, examiner assumed that claim 3 depends on claim 2. Similarly for claim 14 which depends on claim 11 recites the limitation "...the expiration date.." in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination, examiner assumed that claim 11 depends on claim 2.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart et al. (US 2002/0024905) referred to hereinafter by Hart in view of Applicant Admitted Prior Art referred to hereinafter by AAPA in further in view of Pathak et al., "A 25ns 16K CMOS PROM using a 4-Transistor Cell", Cypress Semiconductor Corp, 1985 IEEE International Solid-State Circuits Conference, Digest of Technical Papers, Volume 28, pages 162-163, Feb 14<sup>th</sup>, 1985 referred to hereinafter by Pathak.

14. Regarding claim 1, Hart teaches *a record carrier [figure 1] comprising an information area for storing information [abstract lines 1-2], and an integrated circuit [abstract line 3 and figure 1 element 4] comprising a storage unit for storing additional information ( $A_K$ ) [key: paragraph 0010], the integrated circuit further comprising a memory [paragraph 0006 and claim 6] comprising a resurrection key ( $R_K$ ) [paragraph 0023].*

However, Hart does not explicitly teach that the *integrated circuit comprising a storage unit for storing additional information (DRM)*. AAPA teaches that the *integrated circuit comprising a storage unit for storing additional information (DRM)* [specification page 1 lines 11-17].

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine AAPA's teachings in Hart's record carrier. The motivation/suggestion would have to have a robust method of copy protection [AAPA, specification page 1 lines 17-19].

The combined teaching of Hart and AAPA does not explicitly teach that *the one-time programmable memory having a substantially larger data retention time than the storage unit*. Pathak teaches a *one-time programmable memory* (CMOS PROM) *having a substantially larger data retention time than the storage unit* [page 162, right column, 2<sup>nd</sup> paragraph where the data retention remains 400,000 years compared to the storage unit with EEPROM with 10 years retention as further explained in claim 9].

At the time of the invention, it would have been obvious to an ordinary skill in the art to combine Pathak's teaching in the combined record carrier of Hart and AAPA. The motivation/suggestion would have been to improve speed, optimize cell and enhance reliability of the memory used to retain data for a long period of time under normal/natural conditions [Pathak, page 162 left column first paragraph and right column 2<sup>nd</sup> paragraph].

15. The integrated circuit of claim 16 has the same limitations as the record carrier of claim 1 and hence same rejection rational is applied.

16. Regarding claim 10, Hart teaches that *the integrated circuit is contactlessly readable* [paragraph 0008].



17. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart in view of AAPA and Pathak in further in view of Lee et al. (US 6,266,481) referred to hereinafter by Lee.

18. Regarding claim 2, the combined teachings of Hart, AAPA and Pathak do not explicitly teach *a record carrier wherein the one-time programmable memory further comprises information related to the expiration date ( $D_{EXP}$ ) of the information stored or to be stored in the information area*. Lee teaches *a memory further comprises information related to the expiration date ( $D_{EXP}$ ) of the information stored or to be stored in the information area* [col 13 lines 1-13].

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Lee's teachings to Hart, AAPA and Pathak's record carrier. The motivation/suggestion would have been to determine the status of the information and whether it can be accessed or not [Lee,col 13 lines 1-13 and abstract].

19. Regarding claim 3, Hart teaches that *the record carrier further comprises a disc key* [device key: paragraph 0027 lines 24-25].

20. Regarding claim 4, Hart teaches that *the resurrection key is encrypted with the disc key* [paragraph 0027 last 8 lines].

21. Regarding claim 5, although Lee teaches an expiration date stored in the memory, Lee does not explicitly teach that *the expiration date is encrypted with the disc key*. However, it will be obvious to encrypt the date for added security [Hart, paragraph 0027 last 8 lines].

22. Regarding claim 6, Hart teaches that *the disc key is a unique disc key that is derived from an identifier (communication channel information) of the integrated circuit* [paragraph 0010 lines 4-10].

23. Regarding claim 7, Hart teaches that *the memory further comprises the identifier* [paragraph 0010 lines 4-10].

24. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart in view of AAPA and Pathak in further in view of Chow et al. (US 3,028,659) referred to hereinafter by Chow.

25. Regarding claim 8, the combined teachings of Hart, AAPA and Pathak do not explicitly teach *a record carrier wherein the one-time programmable memory is realized in fuse-logic*. Chow teaches that *the programmable memory is realized in fuse-logic* [col 2 lines 49-52].

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Chow's teachings to Hart, AAPA and Pathak's record carrier. The motivation/suggestion would have been to provide for field reliability and flexibility in the memory [Chow, col 1 lines 31-32].

26. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart in view of AAPA and Pathak in further in view of Xiang et al. (US 6,369,421) referred to hereinafter by Xiang.

27. Regarding claim 9, the combined teachings of Hart, AAPA and Pathak do not explicitly teach *a record carrier wherein the storage unit is an EEPROM having a data retention time of approximately 10 years*. Xiang teaches *an EEPROM having a data retention time of approximately 10 years* [col 1 lines 57-64 and col 5 lines 61-62].

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Xiang's teachings to Hart, AAPA and Pathak's record carrier. The motivation/suggestion would have been to meet the conventional data requirements of the EEPROM [Xiang, col 1 lines 59-60].

28. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart in view of AAPA, Pathak and Lee in further in view of Talagala (US 2002/0162057).

29. Regarding claim 11, Hart teaches *a method of restoring the additional information stored in the storage unit present on the integrated circuit of the record carrier* [abstract], *the method comprising the steps of:*

*reading out (transmitting and receiving) the additional information stored in the storage unit* [abstract];

However, the combined teachings of Hart, AAPA and Pathak do not explicitly teach *checking the integrity of the additional information and, if the integrity of the additional information is insufficient, reading out the resurrection key stored in the one-time programmable memory and restoring the additional information by using the resurrection key*. Talagala teaches *checking the integrity of the additional information*

*and, if the integrity of the additional information is insufficient, restoring the additional information [paragraph 0027].*

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Talagala's teachings to Hart, AAPA and Pathak's record carrier. The motivation/suggestion would have been to be able to reconstruct lost data [Talagala, paragraph 0002 last 4 lines].

30. The apparatus of claim 15 has the same limitations as the method of claim 11 and hence same rejection rational is applied.

31. Regarding claims 12 and 14, Pathak teaches *checking whether the additional information (data) has degenerated in a natural way* [page 162, left column, 2<sup>nd</sup> paragraph lines 7-9].

32. Regarding claim 13, Talagala *teaches the step of restoring the additional information by using the resurrection key is performed on the Internet (Host connection) via a Secure Authenticated Channel (SAC-9) [Figure 1 element 104].*

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HADI ARMOUCHE whose telephone number is (571)270-3618. The examiner can normally be reached on M-Th 7:30-5:00 and Fridays half day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. A./  
HADI ARMOUCHE  
Examiner, Art Unit 2132

/Benjamin E Lanier/  
Primary Examiner, Art Unit 2132